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NOTES ON THE DESMIDS OF NEW YORK

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During the summer and autumn of 1922, the writer was enabled to make a few collections of desmids at several localities in New York state. These collections were not particularly fruitful, and did not yield any new species, yet so little has been done on this family of plants in this state that the writer feels that there is some excuse for such a short report as this. It is hoped that this will be the first of a series of notes on the New York Desmidiaceae. For with the exceedingly varied topography, ranging from the alpine lakes of the Adirondacks to the sand hill ponds of Long Island, the desmid flora of this state ought to present a diversified and interesting assemblage of species.

Of the previous papers on the subject, we might mention two, both of which are very brief. J. W. Bailey in 1846 published an article in the *American Journal of Science and Arts* (II, 1: 126-127), entitled "Some new species of American Desmidiaceae from the Catskill Mountains." This contains an account of only a few species, as might be expected when one considers the state of knowledge on the Desmidiaceae at that time. The other paper is by J. A. Cushman and was published in 1903 (*Bull. Torrey Club* 30: 513-514),—entitled "Desmids from Bronx Park, New York." This report also is brief, although it includes a greater number of species than Bailey's report. Nineteen species are recorded, the majority of which are *Closteria* and *Cosmaria*.

Four localities, involving four separate collections, form the basis of this report. They are as follows: Sept. 29, Port Henry, Essex county, on Lake Champlain; Sept. 30, Crooked Lake, Rensselaer county, and Grafton, Rensselaer county; Nov. 20, Scarsdale, Westchester county.

I. COLLECTION AT PORT HENRY

The material here was collected from floating masses of weeds and *Myriophyllum* which formed a tangled mat entirely

covering the surface of a slightly stagnant pond. This pond was very near Lake Champlain, and evidently had been a small bay until cut off from the Lake by a railroad embankment that ran between the pond and the Lake. As a whole, due to the slightly stagnant environment, the squeezings from the material were not very rich in any sort of plankton. The following species of desmids were identified.

Closterium Ehrenbergii Menegh.—Quite common, and consisting of some extra large specimens.

Micrasterias truncata (Corda) Bréb.—Rare.

Cosmarium undulatum Corda—Rare.

Cosmarium punctulatum Bréb.—Very common.

Cosmarium triplicatum Wolle—Only one specimen found.

Staurastrum crenulatum Näg.—Common.

Staurastrum dilatatum Ehrenb. Very common. Together with the preceding species, making up most of the material.

2. COLLECTED AT CROOKED LAKE

This collection, more fruitful than the preceding one, was made at an inlet to Crooked Lake. The stony bottom of the clear and fresh water was covered with a dense growth of mosses. Squeezings from these mosses yielded an abundance of desmids which unfortunately consisted of a quantity of several common species, with other desmids occasional. The species were as follows:

Netrium Digitus (Ehrenb.) Itzigs. & Rothe.—Occasional.

Closterium Dianae Ehrenb.—Occasional.

Closterium incurvum Bréb.—Rare.

Closterium Lunula (Müll.) Nitzsch.—Occasional.

Closterium Ralfsii hybridum Rabenh.—Occasional.

Closterium Kutzingii Bréb.—Only one specimen found.

Euastrum insulare (Wittr.) Roy—Very common, and together with *C. pseudopyramidatum* making up the bulk of the material.

Euastrum bidentatum Näg.—Common.

Euastrum dubium Näg.—Rare.

Micrasterias americana (Ehrenb.) Ralfs—Rare.

Cosmarium pseudopyramidatum Lund.—Very common.

Cosmarium punctulatum Bréb.—Common.

Cosmarium Broomei Thwaites—Rare.

Cosmarium octhodes Nordst.—Rare.

Cosmarium ornatum Ralfs—Rare.

Cosmarium triplicatum Wolle—Occasional.

Cosmarium isthmium West—Only one specimen found.

Staurastrum dilatatum Ehrenb.—Rare.

Besides these desmids, the material was particularly rich in other plankton. Most numerous were *Pediastrum tetras* (Ehrenb.) Ralfs, *Pediastrum duplex* Meyen, *Sorastrum americanum* (Bohlin) Schmidle, and *Coelastrum microporum* Näg.

3. COLLECTION AT GRAFTON

At Grafton, the collection came from a roadside swamp, almost destitute of water, but with the pools containing submerged sphagnum scattered among the tussocks of dry grass. Squeezings from this submersed sphagnum netted the following species:

Closterium Dianae Ehrenb.—Common.

Closterium rostratum Ehrenb.—Only one specimen.

Closterium intermedium Ralfs—Common.

Closterium didymotocum Corda—Occasional.

Closterium Lunula (Müll.) Nitzsch.—Occasional.

Pleurotaenium trabecula (Ehrenb.) Näg.—Common.

Tetmemorus Brebissonii (Menegh.) Ralfs—Rare.

Euastrum oblongum (Grev.) Ralfs—Common.

Euastrum ansatum Ralfs—Common.

Micrasterias laticeps Nordst.—Occasional.

Micrasterias truncata (Corda) Bréb.—Rare.

Micrasterias radiata Hass.—Very abundant.

Micrasterias denticulata Bréb.—Common.

Micrasterias rotata (Grev.) Ralfs—Rare.

Cosmarium pseudoconnatum Nordst.—Occasional.

Cosmarium pseudopyramidatum Lund.—Common.

Cosmarium moniliforme Ralfs.—Rare.

Cosmarium contractum Kirch.—Rare.

Cosmarium ovale Ralfs—Very abundant and consisting of excellent specimens.

Staurastrum crenulatum Näg.—Common.

Hyalotheca dissiliens (Smith) Bréb.—Rare.

4. COLLECTION AT SCARSDALE

This material is interesting because the collection was made after a thin sheet of ice had commenced to form over the water. Although thus quite late in the season, a considerable desmid flora was found, which consisted mainly of Closteria. The material was secured from the sediment at the bottom of a shallow pond near the Bronx River Parkway. The following species were identified:

Penium margaritaceum (Ehrenb.) Bréb.—Only one specimen.

Closterium acutum (Lyng.) Bréb.—Rare.

Closterium abruptum West—Rare.

Closterium Dianae Ehrenb.—Common.

Closterium Cynthia DeNot—Very common.

Closterium didymotocum Corda—Abundant.

Closterium Ehrenbergii Menegh.—Common.

Closterium Lunula (Müll.) Nitzsch.—Common.

Closterium moniliferum (Bory) Ehrenb.—Abundant.

Closterium tumidum Johnson—Rare.

Pleurotaenium truncatum (Bréb.) Näg.—Common.

Euastrum ansatum Ralfs—Rare.

Euastrum bidentatum Näg.—Rare.

Euastrum oblongum (Grev.) Ralfs—Only one specimen.

Cosmarium moniliforme Ralfs—Rare.

Cosmarium octhodes Nordst—Rare.

Cosmarium punctulatum Bréb.—Rare.

Cosmarium repandum minor West & G. S. West—Rare.

Cosmarium undulatum Corda—Occasional.

Arthrodesmus covergens Ehrenb.—Only one specimen.

Staurastrum crenulatum Näg.—Only one specimen.

The preceding report includes 50 species of desmids, of which there are 15 Cosmaria, 14 Closteria, 6 Micrasterias and 5 Euastra.

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